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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/718,505	11/20/2003	Ronald D. McCallister	1826-310CIPRI	1245

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Lowell W Gresham  
Meschkow & Gresham PLC  
5727 North Seventh Street  
Suite 409  
Phoenix, AZ 85014

EXAMINER

CORRIELUS, JEAN B

ART UNIT PAPER NUMBER

2637

DATE MAILED: 03/09/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/718,505	<b>Applicant(s)</b> MCCALLISTER ET AL.	
	<b>Examiner</b> Jean B Corrielus	<b>Art Unit</b> 2631	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 01 November 2004.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-28 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-28 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over May et al in view of Briffa et al US Patent No. 6,075,411.

As noted in the applicant's remarks filed on 11/19/03, applicant representative admitted that May et al teaches every feature of the claimed invention but does not teach the inclusion of a linearizer or linearizing limitations in all the claims either directly or through dependency. See remark page 16, last paragraph- page 15.

In the same field of endeavor, Briffa et al teaches a linearizer 37 configured to predistort a modulated signal into a predistorted signal see fig. 3 and abstract; and a RF amplifying circuit 13 configured to generate an RF broadcast signal. Given that fact, it would have been obvious to one skill in the art to incorporate such a teaching in May et al in order to adjust the amplitude and phase of the input signal see col. 6, lines 16-18.

3. Claims 21-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over May et al in view of Cova US Patent No. 6,141,390.

As per claims 21-28, as noted in the applicant's remarks filed on 11/19/03, in the co-pending application, S/N. 10/718,507, applicant representative admitted that May et

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al teaches every feature of the claimed invention but does not teach the inclusion of a linearizer. See remark section, page 16, last paragraph- page 15. In the same field of endeavor, Cova teaches a linearizer 407 configured to predistort a modulated signal into a predistorted signal see fig. 4 and col. 5, lines 45-61; and an RF amplifying circuit 103 configured to generate an RF broadcast signal. Given that fact, it would have been obvious to one skill in the art to incorporate such a teaching in May et al in order to improve the linearity of the power amplifier see col. 5, line 59.

### ***Response to Arguments***

4. Applicant's arguments filed 11/01/04 have been fully considered but they are not persuasive. It is alleged that the prior art does not teach or fairly suggest using PAPR circuit to drive a linearizing/ predistortion circuit. As both the PAPR circuits and the linearizing circuits were viewed by those skilled in the art as being exclusive of one another. However, as broadly claimed, the claims only require that a signal generated by a transmitter (modulator, envelope generator and a combiner) be predistorted using a linearizer and digitized prior to amplifying the resultant signal. The primary reference to May teaches a transmitter for generating a signal. However, the Primary reference fails to teach the additional limitations of predistorting the signal using a linearizer and digitizes the predistorted signal prior to providing such a signal an amplifier. Cova is shown to teach clearly the predistorting of a signal using a linearizer and digitizes the predistorted signal prior to providing such a signal an amplifier see fig. 4. As indicated in the previous office action, incorporating the teaching of Cova in May would have been in

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the pervious of ordinary skill in the art. It is further alledged that one skilled in the art would not combine a PAPR circuit with a linearizing /predistortion circuit. However, it is unclear as what circuit applicant is refers to as the PAPR circuit. As noted above, the claims teach at best a transmitter having a modulator, an envelope generator and a combiner. Combining a transmitter circuit (May) with a predistortion teaching included in a transmitter circuit (Cova/Briffa et al) would have been in the purview of one of ordinary skill in the art. See the above rejections. In response to applicant's argument that Briffa et al has a different reason to combined the references, the fact that applicant has recognized another advantage which would flow naturally from following the suggestion of the prior art cannot be the basis for patentability when the differences would otherwise be obvious. See *Ex parte Obiaya*, 227 USPQ 58, 60 (Bd. Pat. App. & Inter. 1985).

All other points of argument are believed to be have been answered or rendered moot in view of the comments made above.

### ***Conclusion***

**5. THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any


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extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jean B Corrielus whose telephone number is 571-272-3020. The examiner can normally be reached on Maxi-Flex.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jay Patel can be reached on 571-272-3086. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Jean B Corrielus  
Primary Examiner  
Art Unit 2637 5/3/05